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10/669,033	09/23/2003	Robert J. Higgins	CM06376J	1815

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EXAMINER	
SANTIAGO CORDERO, MARIVELISSE	

ART UNIT	PAPER NUMBER
2687	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/669,033	HIGGINS ET AL.	
	Examiner	Art Unit	
	Marivelisse Santiago-Cordero	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 8-12, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong et al. (hereinafter "Wong"; Patent No.: 5,881,103).

Regarding claim 1, Wong discloses an audio accessory optimization system (Abstract), comprising: a radio (Fig. 1, reference numeral 110; col. 2, lines 24-28); and an audio accessory coupled to the radio (Fig. 1, reference numerals 120 and 130; col. 2, lines 28-34), the audio accessory including an embedded memory (Figs. 2 and 3, reference numeral 220), the embedded memory containing information to enable the radio to optimize the accessory audio performance (Abstract: Fig. 3, reference numeral 220).

Regarding claim 2, Wong discloses the audio accessory optimization system of claim 1 (see above), wherein the radio is a portable radio (Fig. 1, reference numeral 110; col. 2, lines 28-34).

Regarding claim 3, Wong discloses the audio accessory optimization system of claim 1 (see above), wherein the radio is a mobile radio (Fig. 1, reference numeral 110).

Regarding claim 4, Wong discloses the audio accessory optimization system of claim 1 (see above), wherein the information contained in the embedded memory is organized in a hierarchical fashion (Fig. 3).

Regarding claim 8, Wong discloses an audio accessory optimization system (Abstract), comprising: an audio accessory (Fig. 1, reference numerals 120 and 130; col. 2, lines 28-34) having content information stored therein (Fig. 3, reference numerals 302-314), the content information for conveying information pertaining to the accessory's audio characteristics (Fig. 3, reference numerals 302-314), the accessory for coupling to one of a plurality of radios (Fig. 1, reference numeral 110; note that a plurality of radios is inherently present since it would be unwise to limit the use of an audio accessory to just one radio) wherein each of the plurality of radios detects the content information and optimizes the audio of the accessory in response thereto (col. 4, lines 24-53).

Regarding claim 9, Wong discloses the audio accessory optimization system of claim 8, wherein the content information includes at least one of: audio interface type, number of audio modes and signaling configuration, duplex capability, receive audio parameters, transmit audio parameters, and receiver to transmitter transducer coupling parameters (Fig. 3, reference numerals 302-314; col. 3, lines 29-43).

Regarding claim 10, Wong discloses the audio accessory optimization system of claim 9 (see above), wherein the receive audio parameters include at least one of: power amplifier mode, line mode, transducer load impedance, maximum output level, effective sound pressure level (SPL), cone envelope parameters, and equalization filters (Fig. 3, reference numeral 312-314; col. 3, lines 29-43).

Regarding claim 11, Wong discloses the audio accessory optimization system of claim 10 (see above), wherein the equalization filters comprise at least one of: a standard form IIR filter

with coefficients, a standard form FIR filter with coefficients, a standard form semi-octave band equalizer coefficients (col. 3, lines 37-39).

Regarding claim 12, Wong discloses the audio accessory optimization system of claim 10, wherein the transmit audio parameters include at least one of: minimum microphone bias voltage, maximum microphone bias voltage, microphone electrical model parameters, microphone sensitivity, and microphone acoustic model, equalization filters (Fig. 3, reference numeral 306-308; col. 3, lines 29-43).

Regarding claim 14, Wong discloses the audio accessory optimization system of claim 12, wherein the equalization filters comprise at least one of: a standard form IIR filter with coefficients, a standard form FIR filter with coefficients, a standard form semi-octave band equalizer coefficients (col. 3, lines 37-39).

Regarding claim 15, Wong discloses an audio accessory (Fig. 1, reference numerals 120 and 130), comprising audio optimization parameters (Fig. 3, reference numerals 302-314) stored in the audio accessory (Figs. 2-3, reference numeral 220); and the audio accessory for coupling to a variety of different radios (Fig. 1, reference numeral 110; note that a variety of different radios is inherently present in the reference since it would be unwise to limit the use of an audio accessory to just one type of radio), each radio having different audio characteristics (Abstract; note that each radio having different audio characteristics is inherently present since it discloses that the parameters help characterize the audio response or impact on audio signals within the electronic device, i.e., the radio), the audio accessory being automatically adjusted by each radio based on the audio parameters stored in the audio accessory (col. 3, lines 9-39; col. 4, lines 24-53).

Regarding claim 16, Wong discloses the audio accessory of claim 15 (see above), wherein the audio accessory includes a memory device (Fig. 2, reference numeral 220) containing a plurality of descriptors that provide hierarchical information to enable radio optimization of the audio accessory audio performance (Fig. 3, reference numerals 302-304; col. 3, lines 21-39).

3. Claims 1 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Voltz (Patent No.: 6,859,538).

Regarding claim 1, Voltz discloses an audio accessory optimization system (col. 7, lines 26-48), comprising: a radio (Fig. 1, reference numeral 100; Fig. 5, reference numeral 300; col. 2, lines 63-64; note the stereo); and an audio accessory coupled to the radio (Fig. 5, reference numerals 302, 304, and 306), the audio accessory including an embedded memory (Fig. 5, reference numeral 122), the embedded memory containing information to enable the radio to optimize the accessory audio performance (col. 7, lines 26-48).

Regarding claim 6, Voltz discloses the audio accessory optimization system of claim 1 (see above), wherein the embedded memory uses a single wire bus data communications means (col. 3, lines 51-55 and 61-64).

Regarding claim 7, Voltz discloses the audio accessory optimization system of claim 6, wherein the single wire bus data communications means comprises a 1-Wire® bus (col. 3, lines 51-55).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong in view of Curtiss et al. (hereinafter "Curtiss"; Pub. No.: US 2003/0162562).

Regarding claim 5, Wong discloses the audio accessory optimization system of claim 1 (see above). Wong fails to disclose wherein the information contained in the embedded memory is used to create an encrypted digital signature that is also stored in the embedded memory.

However, Curtiss, in an accessory detection system comprising a radio (Fig. 1, reference numeral 104; page 1, paragraph [0002]; note the audio devices) and an audio accessory coupled

to the radio (Fig. 1, reference numeral 112), the audio accessory including an embedded memory (Fig. 1, reference numeral 120), discloses wherein the information contained in the embedded memory is used to create an encrypted digital signature that is also stored in the embedded memory (page 7, paragraphs [0066] and [0068]; note that the security information is being interpreted as the digital signature).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to use the information contained in the embedded memory of Wong to create an encrypted digital signature that is also stored in the embedded memory as suggested by Curtiss.

One of ordinary skill in this art would have been motivated to use the information contained in the embedded memory to create an encrypted digital signature that is also stored in the embedded memory because it would control or limit the use of the accessory, reduce theft or instances of stolen communication services, inhibit use of counterfeit or un-licensed accessories with the electronic device (page 7, paragraph [0066]).

8. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong in view of Tate et al. (hereinafter "Tate"; Patent No.: 6,009,184).

Regarding claim 12, Wong discloses the audio accessory optimization system of claim 10 (see above). Wong fails to disclose wherein the transmit audio parameters include microphone acoustic model.

In addition, regarding claim 13, Wong fails to disclose wherein the microphone acoustic model includes at least one of: sensor type and response variation with distance.

However, regarding claim 12, Tate, in an audio accessory device (Fig. 2), discloses wherein the transmit audio parameters include microphone acoustic model (col. 2, lines 26-48; col. 6, lines 25-33).

Moreover, regarding claim 13, Tate discloses wherein the microphone acoustic model includes at least one of: sensor type and response variation with distance (col. 6, lines 25-33).

It would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include, in the transmit audio parameters of the audio accessory of Wong, microphone acoustic model wherein the microphone acoustic model includes at least one of: sensor type and response variation with distance as suggested by Tate.

One of ordinary skill in this art would have been motivated to include in the transmit audio parameters of the audio accessory a microphone acoustic model wherein the microphone acoustic model includes at least one of: sensor type and response variation with distance because it would improve voice recognition and speech transmission clarity (Tate: col. 4, lines 5-7).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goldberg (Patent No.: 5,301,360) and Patino (Patent No.: 5,649,307) disclose audio accessories coupled to radios; Nordwall (Patent No.: 6,097,943) discloses an accessory with embedded memory for storing parameter for performing auxiliary function of the accessory.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
6/22/05